Carver, Beverley (DEQ)

From: Carver, Beverley (DEQ)
Sent: Wednesday, February 26, 2014 11:46 AM
To: Trina Mastran (tmastran@bvcity.org)
Subject: Buena Vista STP - VA0020991-Application Complete

February 26, 2014

Trina Mastran
Director of Water Quality
City of Buena Vista
2039 Sycamore Avenue
Buena Vista, Virginia 24416

Re: Buena Vista STP, VPDES Permit No. VA0020991, Rockbridge County

Dear Ms. Mastran:

Your application has been reviewed and appears to be complete. The waivers you requested from sampling and reporting TDS and Oil and Grease have been granted. The next steps involve assembling the information necessary to develop the permit limitations and then drafting the permit. Once the draft permit is prepared and the appropriate reviews are performed, I will transmit the draft permit and supporting documentation to you for review. I expect to have this draft permit package to you within the next 2 months.

The Department of Environmental Quality strives to complete the permitting process in a timely manner. If you have any questions about our procedures or the status of your draft permit, please do not hesitate to contact us.

Sincerely,

Bev Carver
Water Permit Writer Senior

Beverley W. Carver
Water Permit Writer Senior
Department of Environmental Quality
Valley Regional Office
4411 Early Road, Harrisonburg, VA
Phone: (540) 574-7805 FAX: (540)574-7878
email: Beverley.Carver@deq.virginia.gov
web: www.deq.virginia.gov
Mail: P.O. Box 3000, Harrisonburg, VA 22801

DMJ Reviewed: 2.27.14

City of Buena Vista – Department of Water Quality

February 21, 2014

ATTN: Beverly Carver
DEQ – Valley Regional Office
P.O. Box 3000
Harrisonburg, Va. 22801

RE: 2014 Permit Application

Dear Ms. Carver,

Attached is our permit application due May 4, 2014. An electronic version of the Application Form 2A will be e-mailed on Monday the 24th for your use.

Just a few comments regarding the application:

1) I am requesting a waiver for pollutants: oil and grease and as well TDS in Form 2A, Part D.

2) I am requesting a reduction of BOD sampling from 7 days per week to 4 days per week or less. However, any reduction is appreciated. We have collected years of data for BOD (7 days a week) and this information versus BOD violations should provide justification to reduce the number of weekly BODs taken.

3) Traci Montgomery has requested the data from our three permit scans from REIC along with Certificates of Analysis for: nonophenol and Diazinon (per your request).

Attachments (in order) include:

- NPDES Form 2A and topos (outfalls and influent line to WWTP, WWTP units, 1mile radius, ¼ mile radius, facility description from 2006 Basis of Design Report, and process schematic).
- VPDES Application Addendum.
- No Exposure Certification
- VPDES Sewage Sludge Application with process schematic, topographical map with truck route to landfill and Copy of Landfill Permission to receive WWTP processed sludge.
- Public Notice Information
- Permit Billing Information

As always I appreciated your assistance in helping us put this permit together and as well your consideration of requested waivers and reduction of weekly BOD analyses. Should you need any additional information please feel free to contact me at 540-261-1078.

Respectfully,

Trina Mastran
Director of Water Quality

CC: Brandon Kiracofe – DEQ (e-mail only)
Logan O'Day – Intern (e-mail only)
Jay Scudder – City Manager (e-mail only)
Traci Montgomery – Lab Manager (e-mail only)
David Cash – Chief Operator (e-mail only)
Doug Caldwell – Field Director – OWP-VDH-Lexington
File

FACILITY NAME AND PERMIT NUMBER:
Buena Vista STP VA0020991

Form Approved 1/14/99
OMB Number 2040-0086

FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
   b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designated as an SIU by the control authority.

G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

DEQ VALLEY

FEB 25 2014

To: _____

Date: _____

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: Buena Vista STP

Mailing Address: 2039 Sycamore Avenue
Buena Vista, Virginia 24416

Contact person: Trina Mastran

Title: Director of Water Quality

Telephone number: (540)261-1078

Facility Address (not P.O. Box): 2039 Sycamore Avenue
Buena Vista, Virginia

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: same as above

Mailing Address:

Contact person:

Title:

Telephone number:

Is the applicant the owner or operator (or both) of the treatment works?

_____ owner ✓ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility ✓ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA0020991
UIC
RCRA
PSD
Other
Other VAN040063

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
City of Buena Vista	6,650 (2010 Census)	Separate	Municipal

Total population served 6,650

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✓ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 2.25 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	previously submitted	previously submitted	previously submitted	mgd
c. Maximum daily flow rate	previously submitted	previously submitted	previously submitted	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

✓ Separate sanitary sewer	100 %
_____ Combined storm and sanitary sewer	_____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ✓ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent: 2 (001) (002)

ii. Discharges of untreated or partially treated effluent: 0

iii. Combined sewer overflow points: 0

iv. Constructed emergency overflows (prior to the headworks): 0

v. Other _____: N/A

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ✓ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ✓ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ✓ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

NA

If transport is by a party other than the applicant, provide:

Transporter name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. NA mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes ✓ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

_____

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number: 001

b. Location: Buena Vista (City or town, if applicable); 24416 (Zip Code)
Rockbridge (County); Virginia (State)
37 43 37 (Latitude); 79 21 49 (Longitude)

c. Distance from shore (if applicable): NA ft.

d. Depth below surface (if applicable): 0 ft.

e. Average daily flow rate: previously submitted mgd

f. Does this outfall have either an intermittent or a periodic discharge? ____ Yes ✓ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: NA

Average duration of each discharge: NA

Average flow per discharge: NA mgd

Months in which discharge occurs: NA

g. Is outfall equipped with a diffuser? ____ Yes ✓ No

A.10. Description of Receiving Waters.

a. Name of receiving water: Maury River

b. Name of watershed (if known): Upper James River Basin

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): ____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): ____

d. Critical low flow of receiving stream (if applicable):
acute ____ cfs chronic ____ cfs

e. Total hardness of receiving stream at critical low flow (if applicable): ____ mg/l of $CaCO_3$

FACILITY NAME AND PERMIT NUMBER:
Buena Vista STP VA0020991

Form Approved 1/14/99
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A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

✓ Primary ✓ Secondary

____ Advanced ____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	>85	%
Design SS removal	>85	%
Design P removal	NA	%
Design N removal	NA	%
Other _____	_____	%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination

If disinfection is by chlorination, is dechlorination used for this outfall? ✓ Yes ____ No

d. Does the treatment plant have post aeration? ✓ Yes ____ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001 and 002

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.4 (Dec 2013)	s.u.			
pH (Maximum)	7.4 (Mar 2013)	s.u.			
Flow Rate	4.702 (2013)	mgd	1.490 (2013)	mgd	365
Temperature (Winter)	15 (DEC 2013)	C	12	C	90
Temperature (Summer)	21 (AUG 2013	C	19	C	92

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN	BOD-5	29	mg/L	11	mg/L	365	5210B-2001	
DEMAND (Report one)	CBOD-5							
FECAL COLIFORM		28	mg/L	4	#/CML	24	Colilert	
TOTAL SUSPENDED SOLIDS (TSS)		17	mg/L	12	mg/L	12	2540D-1997	

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

280,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

Each year the city provides approximately $42,500 to repair/replace sewerlines with I/I.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ____Yes ✓ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

_____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

_____

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

____Yes ____No

c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM / DD / YYYY	Actual Completion MM / DD / YYYY
– Begin construction	___/___/_____	___/___/_____
– End construction	___/___/_____	___/___/_____
– Begin discharge	___/___/_____	___/___/_____
– Attain operational level	___/___/_____	___/___/_____

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ____Yes ✓ No

Describe briefly: The city is a member of the nutrient exchange association to comply with TN & TP waste load allocations

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)	submitted						
CHLORINE (TOTAL RESIDUAL, TRC)	submitted						
DISSOLVED OXYGEN	submitted						
TOTAL KJELDAHL NITROGEN (TKN)	submitted						
NITRATE PLUS NITRITE NITROGEN	submitted						
OIL and GREASE	Waiver	Requested					
PHOSPHORUS (Total)	submitted						
TOTAL DISSOLVED SOLIDS (TDS)	Waiver	Requested					
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Buena Vista STP VA0020991

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

✓ Basic Application Information packet

Supplemental Application Information packet:

✓ Part D (Expanded Effluent Testing Data)

✓ Part E (Toxicity Testing: Biomonitoring Data)

✓ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: Jay Scudder, City Manager

Signature: 

Telephone number: (540) 261-8601

Date signed: 2/21/14

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
Buena Vista STP VA0020991

Form Approved 1/14/99
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SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	<20	ug/L							3	EPA200.7	
ARSENIC	<20	ug/L							3	EPA200.7	
BERYLLIUM	<1	ug/L							3	EPA200.7	
CADMIUM	<1	ug/L							3	E200.7	
CHROMIUM	<5	ug/L							3	E200.7	
COPPER	48	ug/L							3	E200.7	
LEAD	<10	ug/L							3	E200.7	
MERCURY	<1	ug/L							3	EPA245.1	
NICKEL	<5	ug/L							3	E200.7	
SELENIUM	<20	ug/L							3	EPA200.7	
SILVER	<5	ug/L							3	E200.7	
THALLIUM	<10	ug/L							3	EPA200.7	
ZINC	210	ug/L							3	E200.7	
CYANIDE	<20	ug/L							3	E335.4	
TOTAL PHENOLIC COMPOUNDS	<10.1	ug/L							3	EPA625	
HARDNESS (AS $CaCO_3$)	187	mg/L							3	SM2340B	
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	<15	ug/L							3	EPA624	
ACRYLONITRILE	<15	ug/L							3	EPA624	
BENZENE	<1.0	ug/L							3	E624	
BROMOFORM	<1.0	ug/L							3	E624	
CARBON TETRACHLORIDE	<1.0	ug/L							3	E624	
CLOROBENZENE	<1.0	ug/L							3	E624	
CHLORODIBROMO-METHANE	<1.0	ug/L							3	E624	
CHLOROETHANE	<1.0	ug/L							3	E624	
2-CHLORO-ETHYLVINYL ETHER	<5	ug/L							3	EPA624	
CHLOROFORM	1.3	ug/L							3	E624	
DICHLOROBROMO-METHANE	<1.0	ug/L							3	E624	
1,1-DICHLOROETHANE	<1.0	ug/L							3	E624	
1,2-DICHLOROETHANE	<1.0	ug/L							3	E624	
TRANS-1,2-DICHLORO-ETHYLENE	<5.0	ug/L							3	E624	
1,1-DICHLOROETHYLENE	<1.0	ug/L							3	E624	
1,2-DICHLOROPROPANE	<1.0	ug/L							3	E624	
1,3-DICHLORO-PROPYLENE	<1.0	ug/L							3	E624	
ETHYLBENZENE	<1.0	ug/L							3	E624	
METHYL BROMIDE	<1.0	ug/L							3	E624	
METHYL CHLORIDE	<1.0	ug/L							3	E624	
METHYLENE CHLORIDE	<1.0	ug/L							3	E624	
1,1,2,2-TETRACHLORO-ETHANE	<1.0	ug/L							3	E624	
TETRACHLORO-ETHYLENE	<1.0	ug/L							3	E624	
TOLUENE	52.5	ug/L							3	E624	

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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	<1.0	ug/L							3	E624	
1,1,2-TRICHLOROETHANE	<1.0	ug/L							3	E624	
TRICHLORETHYLENE	<1.0	ug/L							3	E624	
VINYL CHLORIDE	<1.0	ug/L							3	E624	
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL	<10.1	ug/L							3	E625	
2-CHLOROPHENOL	<10.1	ug/L							3	E625	
2,4-DICHLOROPHENOL	<10.1	ug/L							3	E625	
2,4-DIMETHYLPHENOL	<10.1	ug/L							3	E625	
4,6-DINITRO-O-CRESOL	<10.1	ug/L							3	E625	
2,4-DINITROPHENOL	<10.1	ug/L							3	E625	
2-NITROPHENOL	<10.1	ug/L							3	E625	
4-NITROPHENOL	<10.1	ug/L							3	E625	
PENTACHLOROPHENOL	<10.1	ug/L							3	E625	
PHENOL	<10.1	ug/L							3	E625	
2,4,6-TRICHLOROPHENOL	<10.1	ug/L							3	E625	
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	<10.1	ug/L							3	E625	
ACENAPHTHYLENE	<10.1	ug/L							3	E625	
ANTHRACENE	<10.1	ug/L							3	E625	
BENZIDINE	<10.1	ug/L							3	E625	
BENZO(A)ANTHRACENE	<10.1	ug/L							3	E625	
BENZO(A)PYRENE	<10.1	ug/L							3	E625	

FACILITY NAME AND PERMIT NUMBER:
Buena Vista STP VA0020991

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	<10.1	ug/L							3	E625	
BENZO(GHI)PERYLENE	<10.1	ug/L							3	E625	
BENZO(K)FLUORANTHENE	<10.1	ug/L							3	E625	
BIS (2-CHLOROETHOXY) METHANE	<10.1	ug/L							3	E625	
BIS (2-CHLOROETHYL)-ETHER	<10.1	ug/L							3	E625	
BIS (2-CHLOROISO-PROPYL) ETHER	<10.1	ug/L							3	E625	
BIS (2-ETHYLHEXYL) PHTHALATE	<10.1	ug/L							3	E625	
4-BROMOPHENYL PHENYL ETHER	<10.1	ug/L							3	E625	
BUTYL BENZYL PHTHALATE	<10.1	ug/L							3	E625	
2-CHLORONAPHTHALENE	<10.1	ug/L							3	E625	
4-CHLORPHENYL PHENYL ETHER	<10.1	ug/L							3	E625	
CHRYSENE	<10.1	ug/L							3	E625	
DI-N-BUTYL PHTHALATE	<10.1	ug/L							3	E625	
DI-N-OCTYL PHTHALATE	<10.1	ug/L							3	E625	
DIBENZO(A,H) ANTHRACENE	<10.1	ug/L							3	E625	
1,2-DICHLOROBENZENE	<10.1	ug/L							3	E625	
1,3-DICHLOROBENZENE	<10.1	ug/L							3	E625	
1,4-DICHLOROBENZENE	<10.1	ug/L							3	E625	
3,3-DICHLOROBENZIDINE	<10.1	ug/L							3	E625	
DIETHYL PHTHALATE	<10.1	ug/L							3	E625	
DIMETHYL PHTHALATE	<10.1	ug/L							3	E625	
2,4-DINITROTOLUENE	<10.1	ug/L							3	E625	
2,6-DINITROTOLUENE	<10.1	ug/L							3	E625	
1,2-DIPHENYLHYDRAZINE	<10.1	ug/L							3	E625	

FACILITY NAME AND PERMIT NUMBER:
Buena Vista STP VA0020991

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	<10.1	ug/L							3	E625	
FLUORENE	<10.1	ug/L							3	E625	
HEXACHLOROBENZENE	<10.1	ug/L							3	E625	
HEXACHLOROBUTADIENE	<10.1	ug/L							3	E625	
HEXACHLOROCYCLO-PENTADIENE	<10.1	ug/L							3	E625	
HEXACHLOROETHANE	<10.1	ug/L							3	E625	
INDENO(1,2,3-CD)PYRENE	<10.1	ug/L							3	E625	
ISOPHORONE	<10.1	ug/L							3	E625	
NAPHTHALENE	<10.1	ug/L							3	E625	
NITROBENZENE	<10.1	ug/L							3	E625	
N-NITROSODI-N-PROPYLAMINE	<10.1	ug/L							3	E625	
N-NITROSODI- METHYLAMINE	<10.1	ug/L							3	E625	
N-NITROSODI-PHENYLAMINE	<10.1	ug/L							3	E625	
PHENANTHRENE	<10.1	ug/L							3	E625	
PYRENE	<10.1	ug/L							3	E625	
1,2,4-TRICHLOROBENZENE	<10.1	ug/L							3	E625	

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

✓ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

	Test number:_____	Test number:_____	Test number:_____
a. Test information.			
Test species & test method number	previously submitted		
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			
b. Give toxicity test methods followed.			
Manual title			
Edition number and year of publication			
Page number(s)			
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite			
Grab			
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)			
Before disinfection			
After disinfection			
After dechlorination			

	Test number:_____	Test number:_____	Test number:_____
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:			
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity			
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal			
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water			
Receiving water			
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water			
Salt water			
j. Give the percentage effluent used for all concentrations in the test series.			
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH			
Salinity			
Temperature			
Ammonia			
Dissolved oxygen			
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic:			
NOEC	%	%	%
IC_{25}	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

____Yes ____No If yes, describe: _____

_____

_____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: _____ (MM/DD/YYYY)

Summary of results: (see instructions)

_____

_____

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

✓ Yes ___ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 0

b. Number of CIUs. 1

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Modine Manufacturing Company

Mailing Address: 1221 Magnolia Avenue, Buena Vista, Virginia 24416

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

metal finishing

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): manufacture of space heaters

Raw material(s): galvanized metal

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

3895 gpd (___ continuous or ✓ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

0 gpd (___ continuous or ✓ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ✓ Yes ___ No

b. Categorical pretreatment standards ✓ Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

metal finishing

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____Yes ✓ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ____Yes ✓ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____Truck _____Rail _____Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____Yes (complete F.13 through F.15.) ✓ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____Yes ____No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____Continuous ____Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

a. All CSO discharge points.

b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).

c. Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

a. Locations of major sewer trunk lines, both combined and separate sanitary.

b. Locations of points where separate sanitary sewers feed into the combined sewer system.

c. Locations of in-line and off-line storage structures.

d. Locations of flow-regulating devices.

e. Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

a. Outfall number _____

b. Location

_____
(City or town, if applicable) (Zip Code)

_____
(County) (State)

_____
(Latitude) (Longitude)

c. Distance from shore (if applicable) _____ ft.

d. Depth below surface (if applicable) _____ ft.

e. Which of the following were monitored during the last year for this CSO?

____Rainfall ____CSO pollutant concentrations ____CSO frequency

____CSO flow volume ____Receiving water quality

f. How many storm events were monitored during the last year? _____

G.4. CSO Events.

a. Give the number of CSO events in the last year.

_____ events (___ actual or ___ approx.)

b. Give the average duration per CSO event.

_____ hours (____ actual or ____ approx.)

c. Give the average volume per CSO event.

_____ million gallons (_____ actual or _____ approx.)

d. Give the minimum rainfall that caused a CSO event in the last year.

_____ inches of rainfall

G.5. Description of Receiving Waters.

a. Name of receiving water: _____

b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____

c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

_____

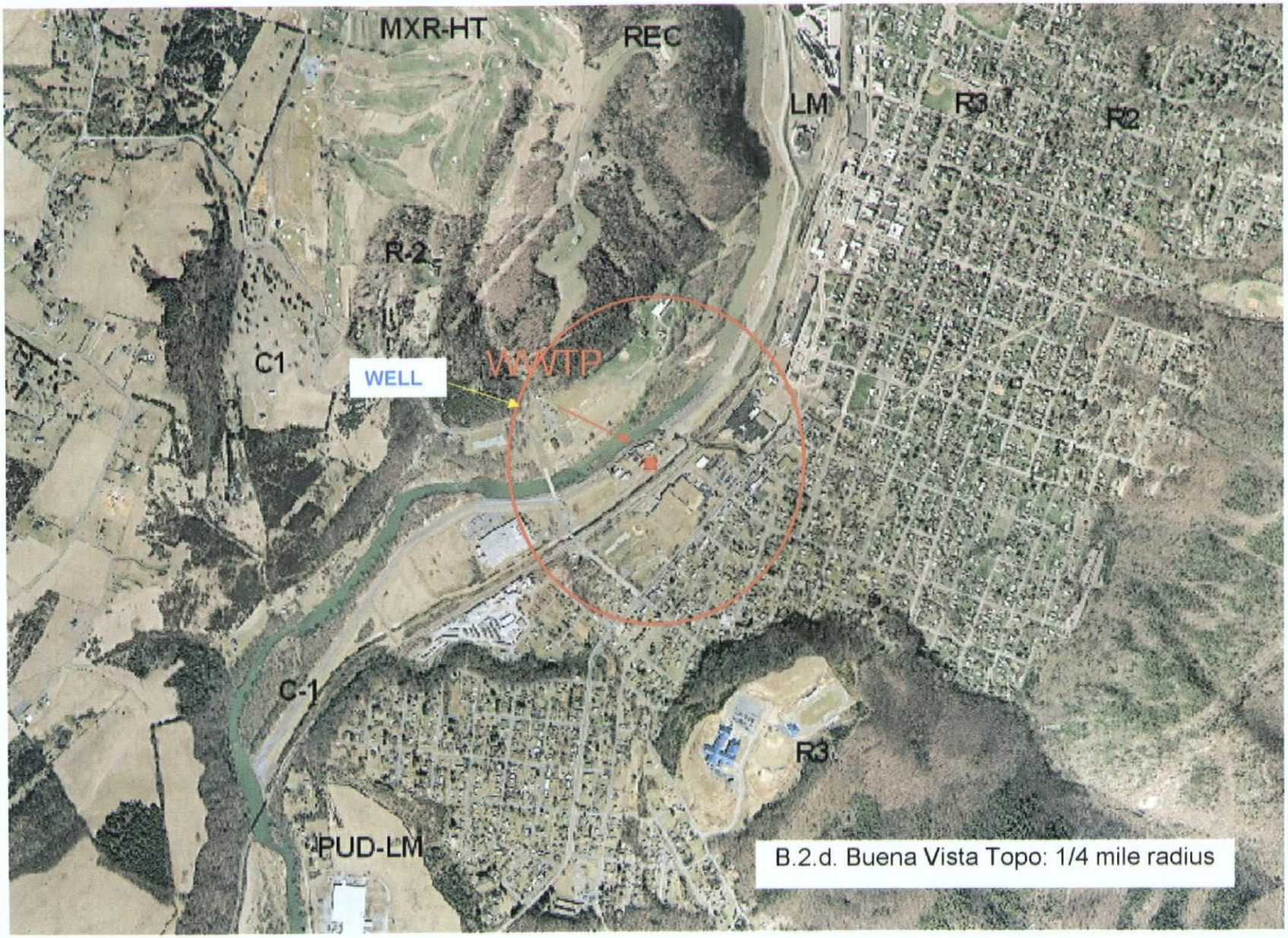
_____

END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.


Outfall 001
Maury River
Flow
Influent
BV WWTP
Outfall 002
Indian Gap Run
(bypass)
Application Addendum Buena Vista WWTP

B.2. a.& e. Buena Vista WWTP

B.2. Buena Vista Topo: 1 mile radius



B.2.d. Buena Vista Topo: 1/4 mile radius

Section 2 Project Background

2.1 Existing Facility Description

The existing Buena Vista WWTF has a design capacity of 2.25 mgd and discharges under VPDES permit No. VA0020991 to the Maury River after providing secondary treatment using a Rotating Biological Contactor (RBC) process. The RBC process is a fixed film process where microorganisms grow on media comprised of rotating disks (contactors). The fixed-film biomass metabolizes the biodegradable organic material and nitrogen-containing compounds in the wastewater. The excess biomass produced on the RBCs sloughs off of the media and is settled out of the wastewater in secondary or final clarifiers.

Raw wastewater enters the plant through a Parkson Aquaguard continuously cleaned fine screen and then to the wet well. Influent flow at the facility is measured by a mag meter. Four (4) dry-pit submersible pumps with VFD drives lift the wastewater to an aerated grit removal system with drag buckets to remove the settled grit. Wastewater then flows by gravity to a splitter box where it is divided between 4 rectangular primary settling tanks. There are a total of 6 primary settling tanks. However, the two standby tanks are in poor structural condition and are not in service. Grease removed from the primaries is returned to the facility headworks. Effluent from the primaries is then lifted by two screw pumps to a hydraulic level to allow for gravity flow through the RBCs, final clarifiers and disinfection process.

RBCs at the facility are arranged in two parallel trains with 3 stages in each train and are enclosed. Total surface area of the media is approximately 600,000 ft^2 with a hydraulic retention time of 1.2 hours at design capacity. The RBCs are air driven with butterfly valves located on the air lines to adjust the air flow. Load cells were installed on the RBC shafts to monitor biomass growth.

Effluent from the RBCs is divided between three, 40-foot diameters, circular final clarifiers. Sludge, from the final clarifiers, is withdrawn through telescoping valves in a sludge wet well.

Clarified effluent then flows to two chlorine contact tanks. Chlorine gas is used to provide disinfection and is fed into solution from a 1-ton cylinder. When the weight of the chlorine gas drops below 500 pounds, an additional 1-ton cylinder is ordered. This operation is monitored and controlled with the objective of maintaining a chlorine inventory of less than 2,500 pounds, which exempts the facility from performing an EPA risk assessment plan. Chlorinated effluent is then dechlorinated using sulfur dioxide fed from 150-pound cylinders.

Treated effluent flows through a Parshall metering flume and over a cascade for post aeration. Final effluent is discharged through an outfall to the Maury River. In the event of a flooding condition the effluent may be discharged through an alternate outfall to the Indian Gap Run which is a tributary to the Maury River.

Two primary sludge pumps and 2 secondary sludge pumps transfer sludge to two, two-stage high-rate anaerobic digesters. Anaerobic digestion stabilizes the sludge prior to dewatering. Polymer is added to the stabilized sludge which is then dewatered with a plate and frame press. The plate and frame press produces a final cake with a solids content of approximately 25%. The dewatered sludge is then disposed of at the Rockbridge County landfill.

Simplified process flow schematics of the existing liquid treatment facilities and solids treatment facilities are shown in Figure 2.1-1. A site plan of the existing facility is shown in Figure 2.1-2. The existing treatment unit processes are summarized in Table 2.1-1.

Unit Process Equipment	Design Criteria	Value[1]
Influent Screening	Type Manufacturer Rated Capacity No. of Units	In-Channel Parkson 5 MGD 1
Influent Lift Station	Type Manufacturer Rated Capacity No. of Units	Dry-Pit and Dry-Pit Submersible Fairbanks Morse Unknown 2 Dry-Pit /2 Dry-Pit Submersible
Grit Removal	Type No. of Units Rated Capacity	Aerated Square Horizontal-Flow Grit Chamber 2 3.8 MGD
Primary Clarifiers	No. of Units Dimensions Surface Area Side Water Depth Volume Peak Hydraulic Loading Rate	4 21 ft X 50 ft 1,050 sf 10 ft 80,500 gallons each 2,500 gpd/sf @ mgd
Screw Pumps	No. of Units Diameter Rated Capacity	3 36" inches 1,900 gpm each
Aeration Blowers	No. of Units Capacity	3 (2+1 spare) 1,200 cfm
Rotating Biological Contactors	No. of Units Size Media Area Hydraulic Loading	6 Shafts 12 ft diameter 100,000 sf (each) 1.5 gpd/sf @ 2.25 mgd
Secondary Clarifiers	No. of Units Diameter Surface Area Side Water Depth Peak Hydraulic Loading Rate	3 40 ft 1,257 sf 10 ft 1,200 gpd/sf
Waste Sludge Pumps	No. of Units Rated Capacity	3 (2+1 spare)
Chlorine Contact Tank	No. of Units Volume Each Tank Detention Time	2 31,400 gallons 02 hrs @ 2.25 mgd
Cascade Aeration	Total Height Width of Steps Number of Steps	10.5 ft 5 ft 7
Anaerobic Digesters	No. of Units Diameter Side Water Depth Volume	2 40 ft 27.5 ft 260,000 gallons each
Plate and Frame Press	No. of Plates	21

Notes:

1. Design criteria values taken from the 1987 record drawings and 1984 record Drawings by R Stuart Royer & Associates, Inc., field data obtained by Stearns & Wheler, LLC, and Hydraulic Analysis performed by Stearns & Wheler, LLC on existing facilities.

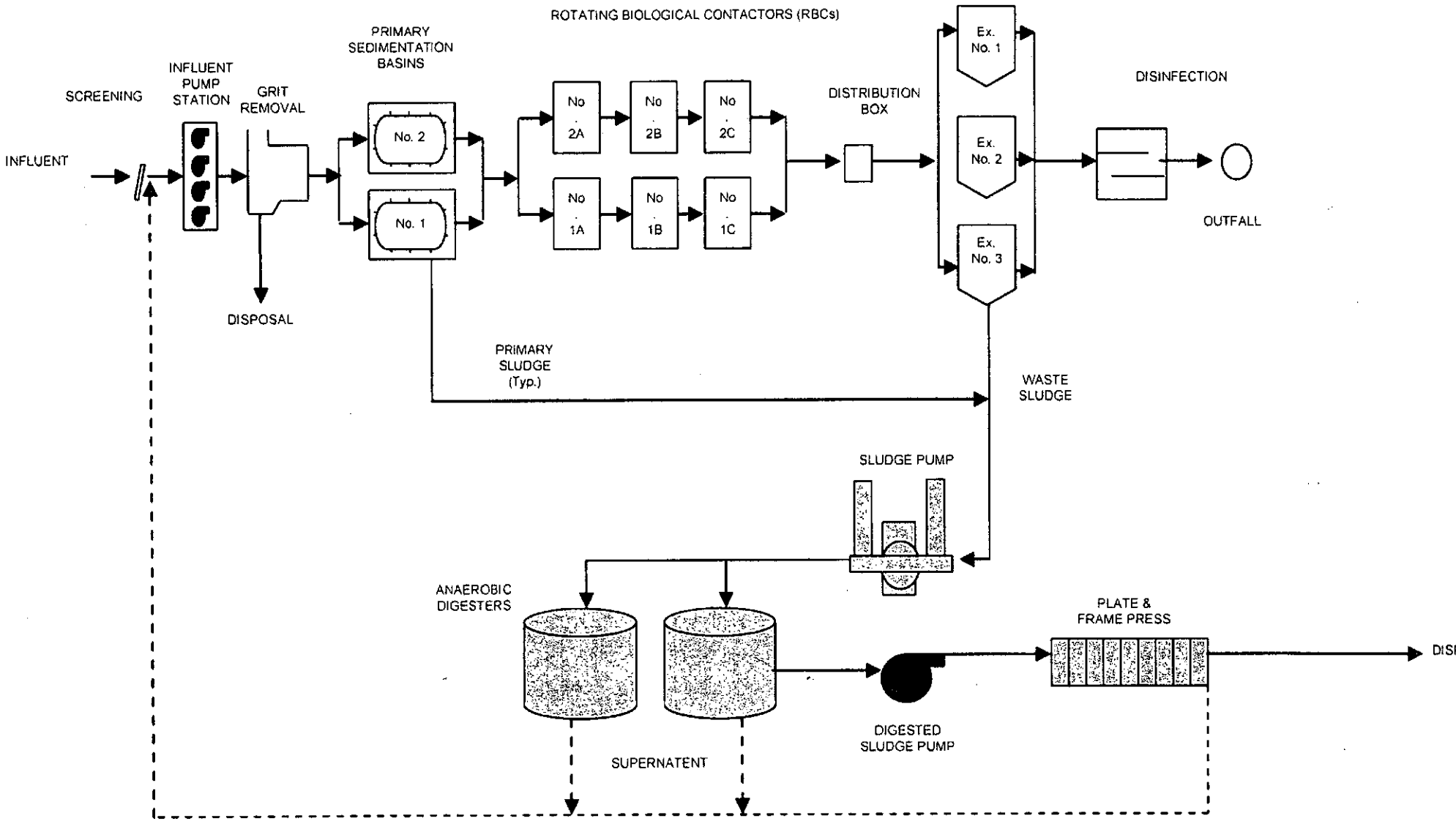


Figure 2.1-1: Existing Process Schematic

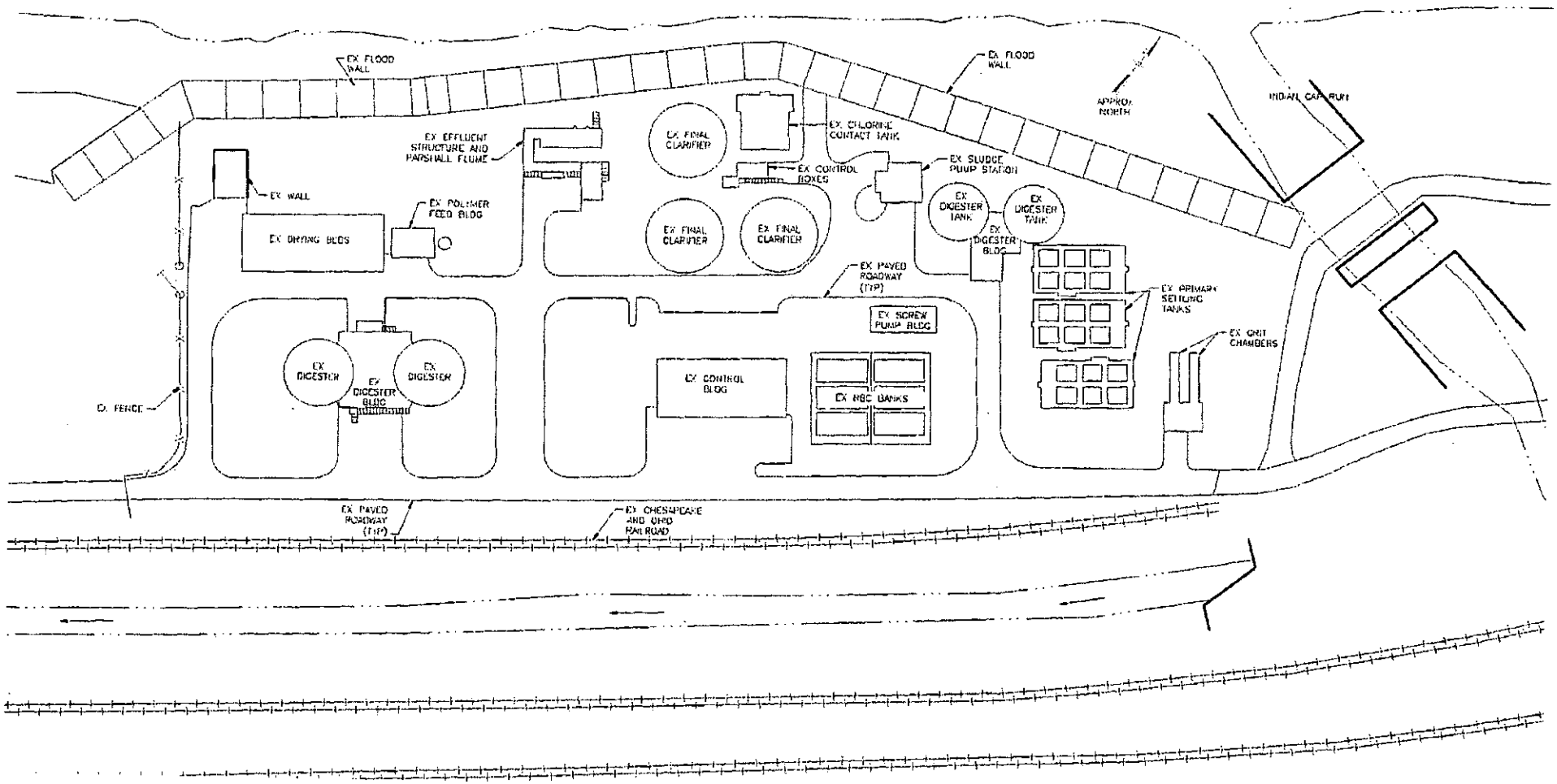


Figure 2.1-2: Buena Vista Wastewater Treatment Plant Site Plan

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued**: Buena Vista Public Service Authority
   Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** Yes
   Include a topographic map identifying the location of the facility, the property boundaries, and the discharge point.

3. **What is the tax map parcel number for the land where this facility is located?** _40-1-1-A__

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 0

5. ALL FACILITIES: **What is the design average flow of this facility?** 2.25 MGD
   Industrial facilities: **What is the maximum 30-day avg. production level (include units)?** NA

   In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Yes

   If "Yes", please specify the other flow tiers (in MGD) or production levels: 3.0 MGD, 3.6 MGD
   Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

6. **Nature of operations generating wastewater**:
   Publicly owned wastewater treatment plant serving the City of Buena Vista

   92% of flow from domestic connections/sources
   Number of private residences to be served by the wastewater treatment facilities: __ 0 __ 1-49 X 50 or more

   8% of flow from non-domestic connections/sources

7. **Mode of discharge**: X Continuous __Intermittent __Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:
   _____

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**
   X Permanent stream, never dry
   ☐ Intermittent stream, usually flowing, sometimes dry
   ☐ Ephemeral stream, wet-weather flow, often dry
   ☐ Effluent-dependent stream, usually or always dry
   ☐ Lake or pond at or below the discharge point
   ☐ Other:_____

9. **Consent to receive electronic mail**
   The Department of Environmental Quality (DEQ) may deliver permits, certifications and plan approvals to recipients, including applicants or permittees, by electronically certified mail where the recipients notify DEQ of their consent to receive mail electronically (§ 10.1-1183). Check *only one* of the following to consent to or decline receipt of electronic mail from DEQ as follows:

   ☒ Applicant or permittee agrees to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity, and to certify receipt of such electronic mail when requested by the DEQ.
   Please provide email: tmastran@bvcity.org

   ☐ Applicant or permittee declines to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity.

VIRGINIA DEQ NO EXPOSURE CERTIFICATION
FOR EXCLUSION FROM VPDES STORM WATER PERMITTING

Submission of this **No Exposure Certification** constitutes notice that the entity identified below does not require permit authorization for its storm water discharges associated with industrial activity under the VPDES Permit Program due to the existence of a condition of **No Exposure**.

A condition of **No Exposure** exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;
- adequately maintained vehicles used in material handling; and
- final products, other than products that would be mobilized in storm water discharges (e.g., rock salt).

A No Exposure Certification must be provided for each facility qualifying for the No Exposure exclusion. In addition, the exclusion from VPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the No Exposure exclusion.

By signing and submitting this No Exposure Certification form, the entity below is certifying that a condition of No Exposure exists at its facility or site, and is obligated to comply with the terms and conditions at 9 VAC 25-31-120 E (the VPDES Permit Regulation).

Please Type or Print All Information. ALL INFORMATION ON THIS FORM MUST BE PROVIDED.

1. **Facility Operator Information**

   Name: City of Buena Vista

   Mailing Address: 2039 Sycamore Avenue

   City: Buena Vista State: VA Zip: 24416 Phone: (540)261-1078

2. **Facility/Site Location Information**

   Facility Name: Buena Vista WWTP

   Address: 301 West 10th Street

   City: Buena Vista State: VA Zip: 24416

   County Name: Rockbridge

   Latitude: 37 deg 43' 36" Longitude: 79 deg 21' 49"

3. **Was the facility or site previously covered under a VPDES storm water permit?** Yes ☐ No ☑

   If "Yes", enter the VPDES permit number: _____

4. **SIC/Activity Codes:** Primary: _____ Secondary (if applicable): _____

5. **Total size of facility/site associated with industrial activity:** 0 acres

6. **Have you paved or roofed over a formerly exposed pervious area in order to qualify for the No Exposure exclusion?** Yes ☐ No ☑

   If "Yes", please indicate approximately how much area was paved or roofed. Completing this question does not disqualify you for the No Exposure exclusion. However, DEQ may use this information in considering whether storm water discharges from your site are likely to have an adverse impact on water quality, in which case you could be required to obtain permit coverage.

   Less than one acre ☐ One to five acres ☐ More than five acres ☐

7. Exposure Checklist

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future? (Please check either "Yes" or "No" in the appropriate box.) **If you answer "Yes" to any of these questions (1) through (11), you are <u>not</u> eligible for the No Exposure exclusion.**

	Yes	No
(1) Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to storm water	☐	☑
(2) Materials or residuals on the ground or in storm water inlets from spill/leaks	☐	☑
(3) Materials or products from past industrial activity	☐	☑
(4) Material handling equipment (except adequately maintained vehicles)	☐	☑
(5) Materials or products during loading/unloading or transporting activities	☐	☑
(6) Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to storm water does not result in the discharge of pollutants)	☐	☑
(7) Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	☐	☑
(8) Materials or products handled/stored on roads or railways owned or maintained by the discharger	☐	☑
(9) Waste material (except waste in covered, non-leaking containers [e.g., dumpsters])	☐	☑
(10) Application or disposal of process wastewater (unless otherwise permitted)	☐	☑
(11) Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the storm water outflow	☐	☑

8. Certification Statement

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of no exposure and obtaining an exclusion from VPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed under 9 VAC 25-31-120 E 2).

I understand that I am obligated to submit a No Exposure Certification form once every five years to the Department of Environmental Quality and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable). I understand that I must allow the Department, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under a VPDES permit prior to any point source discharge of storm water associated with industrial activity from the facility.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: Jay Scudder

Print Title: City Manager

Signature: Jay Scudder

Date: 2/21/14

For Department of Environmental Quality Use Only

Accepted/Not Accepted by: _____ Date: _____

VPDES Sewage Sludge Permit Application for Permit Reissuance

Instructions

WHO MUST SUBMIT THE APPLICATION - All facilities with a current VPDES Permit that authorizes the discharge of treated sewage wastewater that are applying for reissuance must complete and submit this application.
Part 1 is general information to be provided by all facilities.
Part 2 must be completed by all facilities that generate Class A or Class B biosolids that are land applied.
Part 3 must be completed by all facilities that land apply Class B biosolids.

Part 1 – Sludge Disposal Management (To be completed by all facilities)

Facility Name: Buena Vista STP **VPDES Permit No:** VA0020991

1. Shipment Off Site for Treatment or Blending

Is sewage sludge from your facility sent to another facility that provides treatment or blending? ☐ Yes ☒ No

If you send sewage sludge to more than one facility, attach additional sheets as necessary.

Shipment off site is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Receiving Facility Name _____

b. Receiving Facility VPDES Permit No. _____

c. Include an acceptance letter from the Receiving Facility.

d. Receiving Facility's ultimate disposal method for sewage sludge _____

2. Disposal in a Municipal Solid Waste Landfill

Is sewage sludge from your facility placed in a municipal solid waste landfill? ☒ Yes ☐ No

If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

Landfilling is: ☒ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Landfill Name Rockbridge County

b. Landfill Permit No. _____

c. Include an acceptance letter from the landfill.

3. Incineration

Is sewage sludge from your facility fired in a sewage sludge incinerator? ☐ Yes ☒ No

Incineration is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? ☐ Yes ☐ No

If yes, provide the Air Registration No. _____

If no, complete items b - d for each incinerator that you do not own or operate.

b. Facility Name _____

c. Air Registration No. _____

d. Include an acceptance letter from the Incinerator.

4. Class A Biosolids

Do you produce Class A biosolids for land application or distribution and marketing? If yes, complete Part 2. ☐ Yes ☒ No

Are Class A biosolids from your facility land applied in bulk? ☐ Yes ☐ No

Do you sell or give away Class A biosolids in a bag or other container for application to the land? If yes, provide the VDACS certification number? _____ ☐ Yes ☐ No

5. Class B Biosolids

Do you produce Class B biosolids? If yes, complete Part 2. ☐ *Yes* ☒ *No*

Are Class B biosolids from your facility land applied land applied under the authorization of this VPDES Permit? If yes, complete Part 3. ☐ *Yes* ☐ *No*

6. Land Application Under a Separate Permit

Are biosolids from your facility land applied under the authorization of a permit other than your VPDES Permit? ☐ Yes ☒ No

Biosolids are land applied under the authorization of a ☐ VPA permit ☐ Another VPDES Permit ☐ Out of State

Complete items a - c for each VPA permit authorized to land apply biosolids from your facility.

a. Permittee Name b. Permit No.

_____ _____

_____ _____

c. Include copy of any information you provide to the Receiving VPDES or VPA Permittee to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.F.

VPDES Sewage Sludge Permit Application for Permit Reissuance

Part 2 – Biosolids Characterization (To be completed by all facilities that generate biosolids that are land applied.)

1. Have there been changes to sludge treatment processes or storage facilities since the previous permit issuance/reissuance? ☐ Yes ☐ No
2. Do the biosolids generated under this permit that will be land applied meet one of the Class A pathogen requirements in 9 VAC25-31-710.A.3. through A.8 or Class B pathogen requirements in 9VAC25-31-710.B.1. through B.4.? ☐ Yes ☐ No

   Identify the pathogen reduction option utilized to demonstrate compliance with the pathogen reductions requirements and provide the data that demonstrate compliance with the applicable alternative. _____
3. Do the biosolids generated under this permit that will be land applied meet one of the vector attraction reduction requirements in 9VAC25-31-720.B.1. through 10? ☐ Yes ☐ No

   Identify the vector attraction reduction option utilized to demonstrate compliance with the vector attraction reductions requirements and provide the data that demonstrate compliance with the applicable alternative. _____
4. Do the biosolids to be land applied meet the ceiling/pollutant concentrations in 9VAC25-31-540.B? ☐ Yes ☐ No
5. Has data from the most recent 3 samples for pH (S. U.), Percent Solids (%), Ammonium Nitrogen (mg/kg), Nitrate Nitrogen (mg/kg), Total Kjeldahl Nitrogen (mg/kg), Total Phosphorus (mg/kg), Total Potassium (mg/kg), Alkalinity as $CaCO_3$ (mg/kg), Arsenic (mg/kg), Cadmium (mg/kg), Copper (mg/kg), Lead (mg/kg), Mercury (mg/kg), Nickel (mg/kg), Selenium (mg/kg), Zinc (mg/kg) been submitted to DEQ? The samples shall be no more than 4½ years old and each sampling date shall be at least 1 month apart. ☐ Yes ☐ No

   If no, provide the data with this application.

Part 3 – Land Application of Class B Biosolids (To be completed by all facilities that land apply Class B biosolids.)

1. Provide to DEQ and to each locality in which biosolids are to be land applied, written evidence of financial responsibility. Evidence of financial responsibility shall be provided in accordance with 9VAC25-31-100.P.9.
2. For each site, provide a properly completed landowner agreement for each landowner, using the most current Land Application Agreement - Biosolids Form (VPDES Sewage Sludge Permit Application Form – Attachment to Section C).
3. Are any new land application fields proposed at this reissuance? ☐ Yes ☐ No

   If yes, contact the DEQ Regional Office for additional submittal requirements.
4. For the currently permitted land application fields, are the previously submitted site booklets, maps and acreage accurate. ☐ Yes ☐ No

   If no, contact the DEQ Regional Office for additional submittal requirements.
5. Does the facility's Biosolids Management Plan on file with DEQ include the following minimum information? ☐ Yes ☐ No
   a. An odor control plan that addresses the abatement of odors resulting from the storage and/or land application of biosolids.
   b. A description of the transport vehicles to be used.
   c. Procedures for biosolids offloading at the land application site including spill prevention, cleanup (including vehicle cleaning), field reclamation, and emergency notification and cleanup measures.
   d. A description of the land application equipment including procedures for calibrating equipment to ensure uniform distribution and appropriate loading rates.
   e. Procedures used to ensure that land application activities address notification requirements, signage requirements, slope restrictions, operation limitations during periods of inclement weather, soil pH requirements, buffer zone requirements, and site restrictions.
   f. Any other information necessary to ensure compliance with the requirements of the Biosolids Program of the VPDES Permit Regulation (9VAC25-31-420 through 720).

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title Jay Scudder, City Manager

Signature Jay Scudder

Telephone number / Email (540) 261-8601

Date signed 2/21/14

(Based on a review of this information, it may be necessary to submit additional information to meet other legal or technical review requirements.)

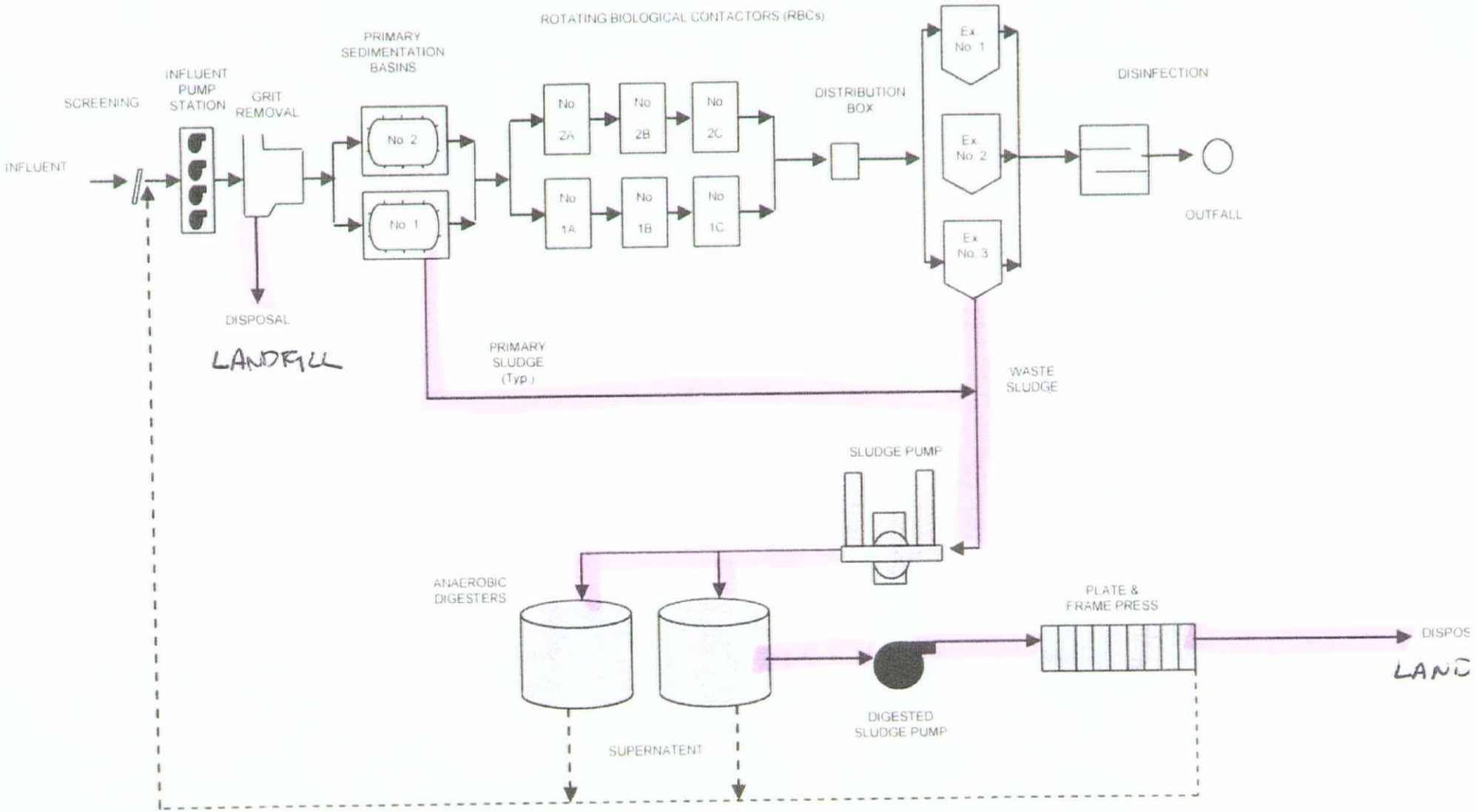
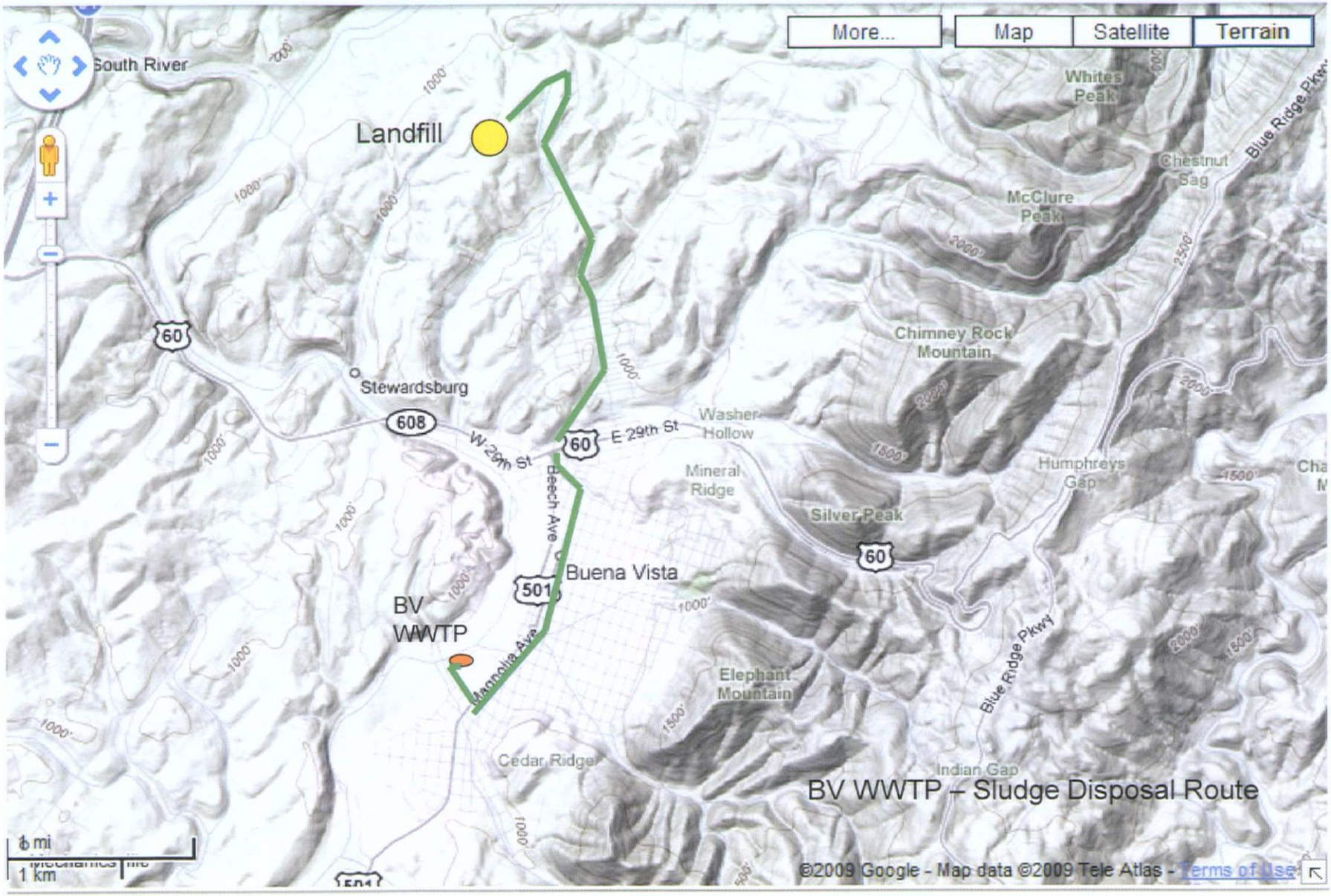


Figure 2.1-1: Existing Process Schematic


More...
Map
Satellite
Terrain
Landfill
South River
Whites Peak
Blue Ridge Pkwy
Chestnut Sag
McClure Peak
Chimney Rock Mountain
60
Stewardsburg
608
W 29th St
E 29th St
Washer Hollow
Mineral Ridge
Humphreys Gap
Silver Peak
Beech Ave
Buena Vista
501
BV WWTP
Magnolia Ave
Elephant Mountain
Cedar Ridge
Indian Gap
BV WWTP – Sludge Disposal Route
1 km
©2009 Google - Map data ©2009 Tele Atlas - Terms of Use

Gmail by Google

Logan ODay <lpoday@gmail.com>

Landfill - WWTP Permit Renewal

2 messages

Trina Mastran <TMastran@bvcity.org> Mon, Feb 17, 2014 at 4:33 PM
To: "jgarrett.rockbridge@gmail.com" <jgarrett.rockbridge@gmail.com>
Cc: Logan ODay <lpoday@gmail.com>

Jeremy,

I hope you are well.

I am in the process of renewing the City's WWTP NPDES Permit. As part of the process I need a written letter/e-mail stating the City of Buena Vista can continue to bring their WWTP pressed sludge to the landfill. Last year we brought around 29 metric tons (not much) to the Landfill.

I am assuming that a response to this e-mail would be sufficient for DEQ purposes.

Trina

City of Buena Vista
Trina Mastran, LEED AP BD+C
Director of Water Quality

mailing address:
2039 Sycamore Ave
Buena Vista, VA 24416

540-461-0173 (cell)

Jeremy Garrett <jgarrett.rockbridge@gmail.com> Mon, Feb 17, 2014 at 5:10 PM
To: Trina Mastran <TMastran@bvcity.org>
Cc: Logan ODay <lpoday@gmail.com>

Trina

Good to hear from you and hope all is well. The Rockbridge County Landfill would love to continue receiving the pressed sludge from the Buena Vista Waste Treatment Facility. Should you find that DEQ requires anything additional, please let me know.

Sent from my iPhone
[Quoted text hidden]

PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in ***News Gazette*** in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed:	City of Buena Vista
Owner:	Buena Vista Public Service Authority
Agent/Department Address:	2039 Sycamore Avenue
	Buena Vista, Virginia 24416
Agent's Telephone No.:	(540)261-1078
Printed Name:	Trina Mastran
Authorizing Agent – Signature:	
Date:	2/24/14

VPDES Permit No. VA0020991
Buena Vista STP

VPDES/VPA Permit Billing Information Form
for Annual Maintenance Fee

Facility Name: Buena Vista STP

Permit Number: VA0020991

Owner Name: Buena Vista Public Service Authority

Owner Address: 2039 Sycamore Avenue

Buena Vista, Virginia 24416

Billing Contact Name: Trina Mastran

Title: Director of Water Quality

Phone Number: (540)261-1078

E-Mail Address: tmastran@bvcity.org

Scan #1 of 3

5/31/2013

Carver, Beverley (DEQ)

From: Cindy Jones [cjones@reiclabs.com]
Sent: Friday, October 11, 2013 11:01 AM
To: Carver, Beverley (DEQ)
Subject: Buena Vista (May 2013) Part D
Attachments: Rpt_1305X40_v2.pdf

Last one!
cj

REIC

Improving the environment, one client at a time...

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
Website: www.reiclabs.com

3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Thursday, October 10, 2013

Ms. Traci Montgomery
CITY OF BUENA VISTA WWTP
301 W. 10th ST.
BUENA VISTA, VA 24416

TEL: (540) 261-1078
FAX: (540) 261-4058

RE:

Work Order #: 1305X40

Dear Ms. Traci Montgomery:

REI Consultants, Inc. received 3 sample(s) on 5/31/2013 for the analyses presented in the following report.

Sincerely,

Cindy Jones

Cindy Jones

Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1305X40

Date Reported: 10/10/2013

Client: CITY OF BUENA VISTA WWTP

Project:

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 7:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 COMP	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
METALS BY ICP		**Method: EPA 200.7**				**EPA 200.2**	**Analyst: CGW**
Antimony	ND	0.0200	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Arsenic	ND	0.0200	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Beryllium	ND	0.0010	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Cadmium	ND	0.0010	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Chromium	ND	0.0050	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Copper	0.0168	0.0050	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Lead	ND	0.0100	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Nickel	ND	0.0050	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Selenium	ND	0.0200	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Silver	ND	0.0050	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Thallium	ND	0.0100	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Zinc	0.0257	0.0200	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM

Notes:

The ICV for TL exceeded REIC control limits by a narrow margin. The CCV was in control limits.

HARDNESS		**Method: SM2340 B**				**EPA 200.2**	**Analyst: CGW**
Hardness, Total (As CaCO3)	75.3	1.00	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
MERCURY, Total		**Method: EPA 245.1**				**EPA 245.1**	**Analyst: DS**
Mercury	ND	0.0010	NA		mg/L	6/5/2013 1:16 PM	6/6/2013 10:21 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 8:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: EPA 625**			**SW3510**		**Analyst: JD**
Acenaphthene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Acenaphthylene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Anthracene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(a)anthracene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzidine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(a)pyrene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(b)fluoranthene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(g,h,i)perylene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(k)fluoranthene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Bis(2-chloroethoxy)methane	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Bis(2-chloroethyl)ether	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Bis(2-chloroisopropyl)ether	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Bis(2-ethylhexyl)phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4-Bromophenyl phenyl ether	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Butyl benzyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4-Chloro-3-methylphenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2-Chloronaphthalene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2-Chlorophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4-Chlorophenyl phenyl ether	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Chrysene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Dibenz(a,h)anthracene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Di-n-butyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
1,2-Dichlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
1,3-Dichlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
1,4-Dichlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
3,3'-Dichlorobenzidine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4-Dichlorophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Diethyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4-Dimethylphenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Dimethyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4,6-Dinitro-2-methylphenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4-Dinitrophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4-Dinitrotoluene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,6-Dinitrotoluene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Di-n-octyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Fluoranthene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Fluorene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Hexachlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Hexachlorobutadiene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Hexachlorocyclopentadiene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 8:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Hexachloroethane	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Indeno(1,2,3-cd)pyrene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Isophorone	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Naphthalene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Nitrobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2-Nitrophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4-Nitrophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
N-Nitrosodi-n-propylamine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
N-Nitrosodimethylamine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
N-Nitrosodiphenylamine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Pentachlorophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Phenanthrene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Phenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Pyrene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
1,2,4-Trichlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4,6-Trichlorophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: 2-Fluorophenol	46.7	25.9-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: Phenol-d5	36.6	8.2-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: Nitrobenzene-d5	80.6	62.2-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: 2-Fluorobiphenyl	80.4	54.6-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: 2,4,6-Tribromophenol	104	61.7-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: 4-Terphenyl-d14	58.2	10.7-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: EPA 625**			**SW3510**		**Analyst: JD**
1,2-Diphenylhydrazine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
VOLATILE ORGANIC COMPOUNDS		**Method: EPA 624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Bromodichloromethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Bromoform	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Bromomethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Carbon tetrachloride	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Chlorobenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Chloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Chloroform	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Chloromethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Dibromochloromethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,1-Dichloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,2-Dichloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 8:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
1,1-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,2-Dichloropropane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Ethylbenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Methylene chloride	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Tetrachloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Toluene	52.5	10.0	NA		µg/L		6/5/2013 5:36 PM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Trichloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Trichlorofluoromethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Vinyl chloride	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
m,p-Xylene	ND	2.0	NA		µg/L		6/4/2013 1:48 AM
o-Xylene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Surr: Dibromofluoromethane	122	70.8-128	NA		%REC		6/4/2013 1:48 AM
Surr: 1,2-Dichloroethane-d4	107	73.2-133	NA		%REC		6/4/2013 1:48 AM
Surr: Toluene-d8	98.1	71-132	NA		%REC		6/4/2013 1:48 AM
Surr: 4-Bromofluorobenzene	94.5	74.2-129	NA		%REC		6/4/2013 1:48 AM
VOLATILE ORGANIC COMPOUNDS-624		**Method: EPA 624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	5.0	NA		µg/L		6/4/2013 1:48 AM
Acrolein	ND	10.0	NA		µg/L		6/4/2013 1:48 AM
Acrylonitrile	ND	10.0	NA		µg/L		6/4/2013 1:48 AM

Notes:

2-Chloroethylvinyl ether is unstable under conditions of acidic preservation.
The sample was improperly preserved for acrolein at pH<2.

PHENOLICS		**Method: EPA 420.1**					**Analyst: BA**
Phenolics	0.014	0.010	NA		mg/L		6/6/2013 1:30 PM
Cyanide		**Method: EPA 335.4**					**Analyst: AL**
Cyanide, Total	ND	0.020	NA		mg/L	6/5/2013 10:00 AM	6/5/2013 1:20 PM

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 12:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-03A	**Matrix:**	Waste Water
Client Sample ID:	TRIP BLANK	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		**Method: EPA 624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Bromodichloromethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Bromoform	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Bromomethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Carbon tetrachloride	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Chlorobenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Chloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Chloroform	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Chloromethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Dibromochloromethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1-Dichloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,2-Dichloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,2-Dichloropropane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Ethylbenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Methylene chloride	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Tetrachloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Toluene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Trichloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Trichlorofluoromethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Vinyl chloride	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
m,p-Xylene	ND	2.0	NA		µg/L		6/4/2013 2:21 AM
o-Xylene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Surr: Dibromofluoromethane	103	70.8-128	NA		%REC		6/4/2013 2:21 AM
Surr: 1,2-Dichloroethane-d4	102	73.2-133	NA		%REC		6/4/2013 2:21 AM
Surr: Toluene-d8	100	71-132	NA		%REC		6/4/2013 2:21 AM
Surr: 4-Bromofluorobenzene	97.1	74.2-129	NA		%REC		6/4/2013 2:21 AM

Carver, Beverley (DEQ)

From: Traci Montgomery [tmontgomery@bvcity.org]
Sent: Tuesday, June 18, 2013 7:00 AM
To: Carver, Beverley (DEQ)
Subject: FW: Analytical Report: 1305X40,1305X40
Attachments: COC_1305X40_v1.pdf; Rpt_1305X40_Final_v1.pdf

Hi Bev,
Here are our results for the Part D expanded testing. If you have any questions please let me know.
Thanks,
Traci Montgomery

From: TRACI MONTGOMERY [wmtmcm@hotmail.com]
Sent: Tuesday, June 18, 2013 6:59 AM
To: Traci Montgomery
Subject: FW: Analytical Report: 1305X40,1305X40

> From: alerts@reiconnectonline.net
> To: wmtmcm@hotmail.com
> CC: cjones@reiclabs.com
> Date: Thu, 13 Jun 2013 14:47:09 -0400
> Subject: Analytical Report: 1305X40,1305X40
>
> Attached are your results in electronic format.
>
> Please feel free to contact me by email at cjones@reiclabs.com with any questions.
>
> Sincerely,
>
> Cindy Jones
> Project Manager
> cjones@reiclabs.com
> PO Box 286
> Beaver, WV 25813
> REI Consultants, Inc.
> TEL: TEL: 304.255.2500 ()
> FAX: FAX:
> www.reiclabs.com

REIC

Improving the environment, one client at a time...

REI Consultants, Inc.
PO Box 286
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3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.777.1276

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Monday, June 10, 2013

Ms. Traci Montgomery
CITY OF BUENA VISTA WWTP
301 W. 10th ST.
BUENA VISTA, VA 24416

TEL: (540) 261-1078
FAX: (540) 261-4058

RE:
Work Order #: 1305X40

Dear Ms. Traci Montgomery:

REI Consultants, Inc. received 3 sample(s) on 5/31/2013 for the analyses presented in the following report.

Sincerely,

Cindy Jones

Cindy Jones
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1305X40

Date Reported: 6/10/2013

Client: CITY OF BUENA VISTA WWTP

Project:

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 6/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 7:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 COMP	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
METALS BY ICP		**Method: E200.7**			**E200.2**		**Analyst: CGW**
Cadmium	ND	0.0010	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Chromium	ND	0.0050	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Copper	0.0168	0.0050	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Lead	ND	0.0100	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Nickel	ND	0.0050	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Silver	ND	0.0050	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
Zinc	0.0257	0.0200	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
HARDNESS		**Method: SM2340 B**			**E200.2**		**Analyst: CGW**
Hardness, Total (As CaCO3)	75.3	1.00	NA		mg/L	6/5/2013 8:29 AM	6/5/2013 12:55 PM
MERCURY, Total		**Method: EPA245.1**			**EPA245.1**		**Analyst: DS**
Mercury	ND	0.0010	NA		mg/L	6/5/2013 1:16 PM	6/6/2013 10:21 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 6/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 8:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS	**Method: E625**				**SW3510**		**Analyst: JD**
Acenaphthene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Acenaphthylene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Anthracene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(a)anthracene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzidine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(a)pyrene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(b)fluoranthene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(g,h,i)perylene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Benzo(k)fluoranthene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Bis(2-chloroethoxy)methane	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Bis(2-chloroethyl)ether	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Bis(2-chloroisopropyl)ether	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Bis(2-ethylhexyl)phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4-Bromophenyl phenyl ether	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Butyl benzyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4-Chloro-3-methylphenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2-Chloronaphthalene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2-Chlorophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4-Chlorophenyl phenyl ether	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Chrysene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Dibenz(a,h)anthracene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Di-n-butyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
1,2-Dichlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
1,3-Dichlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
1,4-Dichlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
3,3'-Dichlorobenzidine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4-Dichlorophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Diethyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4-Dimethylphenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Dimethyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4,6-Dinitro-2-methylphenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4-Dinitrophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4-Dinitrotoluene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,6-Dinitrotoluene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Di-n-octyl phthalate	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Fluoranthene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Fluorene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Hexachlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Hexachlorobutadiene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Hexachlorocyclopentadiene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 6/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 8:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Hexachloroethane	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Indeno(1,2,3-cd)pyrene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Isophorone	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Naphthalene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Nitrobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2-Nitrophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
4-Nitrophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
N-Nitrosodi-n-propylamine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
N-Nitrosodimethylamine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
N-Nitrosodiphenylamine	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Pentachlorophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Phenanthrene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Phenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Pyrene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
1,2,4-Trichlorobenzene	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
2,4,6-Trichlorophenol	ND	0.0101	NA		mg/L	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: 2-Fluorophenol	46.7	25.9-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: Phenol-d5	36.6	8.2-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: Nitrobenzene-d5	80.6	62.2-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: 2-Fluorobiphenyl	80.4	54.6-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: 2,4,6-Tribromophenol	104	61.7-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
Surr: 4-Terphenyl-d14	58.2	10.7-110	NA		%REC	6/5/2013 12:48 PM	6/6/2013 11:08 PM
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Bromodichloromethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Bromoform	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Bromomethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Carbon tetrachloride	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Chlorobenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Chloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Chloroform	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Chloromethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Dibromochloromethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,1-Dichloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,2-Dichloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,1-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,2-Dichloropropane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 6/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 8:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Ethylbenzene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Methylene chloride	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Tetrachloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Toluene	52.5	10.0	NA		µg/L		6/5/2013 5:36 PM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Trichloroethene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Trichlorofluoromethane	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Vinyl chloride	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
m,p-Xylene	ND	2.0	NA		µg/L		6/4/2013 1:48 AM
o-Xylene	ND	1.0	NA		µg/L		6/4/2013 1:48 AM
Surr: Dibromofluoromethane	122	70.8-128	NA		%REC		6/4/2013 1:48 AM
Surr: 1,2-Dichloroethane-d4	107	73.2-133	NA		%REC		6/4/2013 1:48 AM
Surr: Toluene-d8	98.1	71-132	NA		%REC		6/4/2013 1:48 AM
Surr: 4-Bromofluorobenzene	94.5	74.2-129	NA		%REC		6/4/2013 1:48 AM
PHENOLICS		**Method: E420.1**					**Analyst: BA**
Phenolics	0.014	0.010	NA		mg/L		6/6/2013 1:30 PM
Cyanide		**Method: E335.4**					**Analyst: AL**
Cyanide, Total	ND	0.020	NA		mg/L	6/5/2013 10:00 AM	6/5/2013 1:20 PM

REI Consultants, Inc. - Analytical Report

WO#: 1305X40

Date Reported: 6/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	5/31/2013 12:00:00 AM
Project:		**Date Received:**	5/31/2013
Lab ID:	1305X40-03A	**Matrix:**	Waste Water
Client Sample ID:	TRIP BLANK	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Bromodichloromethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Bromoform	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Bromomethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Carbon tetrachloride	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Chlorobenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Chloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Chloroform	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Chloromethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Dibromochloromethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1-Dichloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,2-Dichloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,2-Dichloropropane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Ethylbenzene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Methylene chloride	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Tetrachloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Toluene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Trichloroethene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Trichlorofluoromethane	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Vinyl chloride	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
m,p-Xylene	ND	2.0	NA		µg/L		6/4/2013 2:21 AM
o-Xylene	ND	1.0	NA		µg/L		6/4/2013 2:21 AM
Surr: Dibromofluoromethane	103	70.8-128	NA		%REC		6/4/2013 2:21 AM
Surr: 1,2-Dichloroethane-d4	102	73.2-133	NA		%REC		6/4/2013 2:21 AM
Surr: Toluene-d8	100	71-132	NA		%REC		6/4/2013 2:21 AM
Surr: 4-Bromofluorobenzene	97.1	74.2-129	NA		%REC		6/4/2013 2:21 AM

NO. 318203

CHAIN OF CUSTODY RECORD

REIC
Research Environmental & Industrial Consultants, Inc.
MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 · 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 · 304-255-2500 · www.reiclabs.com

MID-OHIO VALLEY Service Center
209 15th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste. 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

Client: City of Buena Vista WWTP PO #:
Contact Person: Traci Montgomery Phone: 540-261-1078
QUOTE #: Fax: 540-261-4058 Email:
Address: 301 W. 10th St. City: Buena Vista State: VA Zip: 24416
Billing Address (if different): 2039 Sycamore Ave.
City: B.V. State: VA Zip: 24416
Site ID & State: Project ID: Sampler: Traci M.

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: ☐ NORMAL RUSH TURNAROUND: ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	5 Cyanide	2 Metals by 200.7	2 Hardness	2 Mercury	0 SVOC by 625	1 VOCs by 624	03 VOCs by 624	Total Phenolics
Effluent 001	1/plastic	5-31-13/8:00 Am	WW	grab	✓							
Effluent 001	1/plastic	5-30/5-31-13 7Am-7Am	WW	comp		✓	✓	✓				
Effluent 001	3/Amber glass	5-31-13/8:00 Am	WW	grab					✓			
Effluent 001	4/vials	5-31-13/8:00 Am	WW	grab						✓		
Effluent 001	2/vials	5-31-13/8:00 Am	WW	grab							✓	
Effluent 001	1/Amber glass	5-31-13/8:00 Am	WW	grab								✓

ENTER PRESERVATIVE CODE:
0 None 5 Sodium Hydroxide
1 Hydrochloric Acid 6 Zinc Acetate
2 Nitric Acid 7 EDTA
3 Sulfuric Acid 8 Ascorbic Acid
4 Sodium Thiosulfate

COMMENTS:

All analytical requests are subject to REIC's Standard Terms and Conditions:

Temperature at arrival: 3 °C ICED? Y ✓ N

	Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
1	Traci Montgomery	5-31-13 1045		
2	Katie Broyles	5-31-13 1045		

FAX RESULTS ☐ EMAIL RESULTS ☐
SHIPMENT: ___ Hand Delivered ✓ Courier ___ UPS ___ FEDEX ___ USPS ___ OTHER

COC-NCR-031110

Scan # 2 of 3

8/30/2013

Carver, Beverley (DEQ)

From: Cindy Jones [cjones@reiclabs.com]
Sent: Friday, October 11, 2013 11:01 AM
To: Carver, Beverley (DEQ)
Subject: Buena Vista Part D attachment
Attachments: Rpt_1308W28_Final_v2.pdf

OK – Here is version 2 for REIC 1308W28. This should have everything added that you need. Just let me know if there is still a problem.
Thanks for your patience. I must say you were very good about the delay.
Thanks again.
Cindy

REIC

Improving the environment, one client at a time...

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
Website: www.reiclabs.com

3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Thursday, October 10, 2013

Ms. Traci Montgomery
CITY OF BUENA VISTA WWTP
301 W. 10th ST.
BUENA VISTA, VA 24416

TEL: (540) 261-1078
FAX: (540) 261-4058

RE: EFFLUENT 001
Work Order #: 1308W28

Dear Ms. Traci Montgomery:

REI Consultants, Inc. received 3 sample(s) on 8/30/2013 for the analyses presented in the following report.

Sincerely,

Cindy Jones

Cindy Jones
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1308W28

Date Reported: 10/10/2013

Client: CITY OF BUENA VISTA WWTP

Project: EFFLUENT 001

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094, WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: EPA 625**			**SW3510**		**Analyst: JD**
Acenaphthene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Acenaphthylene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Anthracene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(a)anthracene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzidine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(a)pyrene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(b)fluoranthene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(g,h,i)perylene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(k)fluoranthene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Bis(2-chloroethoxy)methane	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Bis(2-chloroethyl)ether	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Bis(2-chloroisopropyl)ether	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Bis(2-ethylhexyl)phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4-Bromophenyl phenyl ether	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Butyl benzyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4-Chloro-3-methylphenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2-Chloronaphthalene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2-Chlorophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4-Chlorophenyl phenyl ether	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Chrysene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Dibenz(a,h)anthracene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Di-n-butyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
1,2-Dichlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
1,3-Dichlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
1,4-Dichlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
3,3'-Dichlorobenzidine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4-Dichlorophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Diethyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4-Dimethylphenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Dimethyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4,6-Dinitro-2-methylphenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4-Dinitrophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4-Dinitrotoluene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,6-Dinitrotoluene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Di-n-octyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Fluoranthene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Fluorene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Hexachlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Hexachlorobutadiene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Hexachlorocyclopentadiene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Hexachloroethane	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Indeno(1,2,3-cd)pyrene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Isophorone	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Naphthalene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Nitrobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2-Nitrophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4-Nitrophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
N-Nitrosodi-n-propylamine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
N-Nitrosodimethylamine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
N-Nitrosodiphenylamine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Pentachlorophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Phenanthrene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Phenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Pyrene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
1,2,4-Trichlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4,6-Trichlorophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: 2-Fluorophenol	45.4	25.9-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: Phenol-d5	36.8	8.2-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: Nitrobenzene-d5	71.6	62.2-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: 2-Fluorobiphenyl	68.0	54.6-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: 2,4,6-Tribromophenol	66.8	61.7-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: 4-Terphenyl-d14	54.4	10.7-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: EPA 625**			**SW3510**		**Analyst: JD**
1,2-Diphenylhydrazine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
VOLATILE ORGANIC COMPOUNDS		**Method: EPA 624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Bromodichloromethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Bromoform	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Bromomethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Carbon tetrachloride	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Chlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Chloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Chloroform	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Chloromethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Dibromochloromethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1-Dichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,2-Dichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
1,1-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,2-Dichloropropane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Ethylbenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Methylene chloride	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Tetrachloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Toluene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Trichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Trichlorofluoromethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Vinyl chloride	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
m,p-Xylene	ND	2.0	NA		µg/L		9/4/2013 7:19 PM
o-Xylene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Surr: Dibromofluoromethane	103	70.8-128	NA		%REC		9/4/2013 7:19 PM
Surr: 1,2-Dichloroethane-d4	96.4	73.2-133	NA		%REC		9/4/2013 7:19 PM
Surr: Toluene-d8	92.3	71-132	NA		%REC		9/4/2013 7:19 PM
Surr: 4-Bromofluorobenzene	102	74.2-129	NA		%REC		9/4/2013 7:19 PM
VOLATILE ORGANIC COMPOUNDS-624		**Method: EPA 624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	5.0	NA		µg/L		9/4/2013 7:19 PM
Acrolein	ND	10.0	NA		µg/L		9/4/2013 7:19 PM
Acrylonitrile	ND	10.0	NA		µg/L		9/4/2013 7:19 PM

Notes:

2-Chloroethylvinyl ether is unstable under conditions of acidic preservation.

The sample was improperly preserved for acrolein at pH<2.

PHENOLICS		**Method: EPA 420.1**					**Analyst: BA**
Phenolics	ND	0.010	NA		mg/L		9/5/2013 11:30 AM
Cyanide		**Method: EPA 335.4**					**Analyst: AL**
Cyanide, Total	ND	0.020	NA		mg/L	9/3/2013 1:20 PM	9/4/2013 7:49 AM

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 7:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 COMP	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
METALS BY ICP		**Method: EPA 200.7**				**EPA 200.2**	**Analyst: CGW**
Antimony	ND	0.0200	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Arsenic	ND	0.0200	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Beryllium	ND	0.0010	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Cadmium	ND	0.0010	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Chromium	ND	0.0050	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Copper	0.0480	0.0050	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Lead	ND	0.0100	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Nickel	ND	0.0050	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Selenium	ND	0.0200	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Silver	ND	0.0050	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Thallium	ND	0.0100	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Zinc	0.210	0.0200	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM

Notes:

The ICV for TL exceeded REIC control limits by a narrow margin. The CCV was in control limits.

HARDNESS		**Method: SM2340 B**					**Analyst: CGW**
Hardness, Total (As CaCO3)	187	1.00	NA		mg/L		9/4/2013 4:35 PM
MERCURY, Total		**Method: EPA 245.1**				**EPA 245.1**	**Analyst: DS**
Mercury	ND	0.0010	NA		mg/L	9/5/2013 12:05 PM	9/5/2013 4:09 PM

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 10/10/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 12:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-03A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		**Method: EPA 624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Bromodichloromethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Bromoform	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Bromomethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Carbon tetrachloride	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Chlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Chloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Chloroform	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Chloromethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Dibromochloromethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1-Dichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,2-Dichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,2-Dichloropropane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Ethylbenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Methylene chloride	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Tetrachloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Toluene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Trichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Trichlorofluoromethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Vinyl chloride	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
m,p-Xylene	ND	2.0	NA		µg/L		9/4/2013 7:54 PM
o-Xylene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Surr: Dibromofluoromethane	104	70.8-128	NA		%REC		9/4/2013 7:54 PM
Surr: 1,2-Dichloroethane-d4	94.4	73.2-133	NA		%REC		9/4/2013 7:54 PM
Surr: Toluene-d8	93.0	71-132	NA		%REC		9/4/2013 7:54 PM
Surr: 4-Bromofluorobenzene	102	74.2-129	NA		%REC		9/4/2013 7:54 PM

Carver, Beverley (DEQ)

From: TRACI MONTGOMERY [wmtmcm@hotmail.com]
Sent: Monday, September 30, 2013 11:58 AM
To: Carver, Beverley (DEQ)
Subject: Second set of Part D testing results
Attachments: Rpt_1308W28_Final_v1.pdf

Hi Bev,
Here are the second set of results for the Part D. expanded effluent testing. Please let me know that you received this information. If you have any questions or problems please let me know.
Thank you,
Traci Montgomery
City of Buena Vista WWTP

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: 304.255.2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

3029-C Peters Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Monday, September 09, 2013

Ms. Traci Montgomery
CITY OF BUENA VISTA WWTP
301 W. 10th ST.
BUENA VISTA, VA 24416

TEL: (540) 261-1078
FAX: (540) 261-4058

RE: EFFLUENT 001

Work Order #: 1308W28

Dear Ms. Traci Montgomery:

REI Consultants, Inc. received 3 sample(s) on 8/30/2013 for the analyses presented in the following report.

Sincerely,

Cindy Jones

Cindy Jones
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1308W28

Date Reported: 9/9/2013

Client: CITY OF BUENA VISTA WWTP

Project: EFFLUENT 001

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460149, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094, WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 9/9/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: E625**				**SW3510**	**Analyst: JD**
Acenaphthene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Acenaphthylene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Anthracene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(a)anthracene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzidine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(a)pyrene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(b)fluoranthene 3,4 benzo-fluoranthene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(g,h,i)perylene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Benzo(k)fluoranthene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Bis(2-chloroethoxy)methane	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Bis(2-chloroethyl)ether	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Bis(2-chloroisopropyl)ether	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Bis(2-ethylhexyl)phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4-Bromophenyl phenyl ether	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Butyl benzyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4-Chloro-3-methylphenol (p-chloro-m-cresol)	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2-Chloronaphthalene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2-Chlorophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4-Chlorophenyl phenyl ether	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Chrysene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Dibenz(a,h)anthracene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Di-n-butyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
1,2-Dichlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
1,3-Dichlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
1,4-Dichlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
3,3'-Dichlorobenzidine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4-Dichlorophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Diethyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4-Dimethylphenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Dimethyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4-Dinitrophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4-Dinitrotoluene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,6-Dinitrotoluene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Di-n-octyl phthalate	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Fluoranthene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Fluorene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Hexachlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Hexachlorobutadiene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Hexachlorocyclopentadiene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 9/9/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Hexachloroethane	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Indeno(1,2,3-cd)pyrene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Isophorone	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Naphthalene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Nitrobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2-Nitrophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
4-Nitrophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
N-Nitrosodi-n-propylamine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
N-Nitrosodimethylamine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
N-Nitrosodiphenylamine	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Pentachlorophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Phenanthrene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Phenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Pyrene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
1,2,4-Trichlorobenzene	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
2,4,6-Trichlorophenol	ND	0.0101	NA		mg/L	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: 2-Fluorophenol	45.4	25.9-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: Phenol-d5	36.8	8.2-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: Nitrobenzene-d5	71.6	62.2-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: 2-Fluorobiphenyl	68.0	54.6-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: 2,4,6-Tribromophenol	66.8	61.7-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
Surr: 4-Terphenyl-d14	54.4	10.7-110	NA		%REC	9/4/2013 8:18 AM	9/5/2013 9:21 PM
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Bromodichloromethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Bromoform	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Bromomethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Carbon tetrachloride	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Chlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Chloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Chloroform	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Chloromethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Dibromochloromethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1-Dichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,2-Dichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,2-Dichloropropane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 9/9/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Ethylbenzene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Methylene chloride	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Tetrachloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Toluene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Trichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Trichlorofluoromethane	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Vinyl chloride	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
m,p-Xylene	ND	2.0	NA		µg/L		9/4/2013 7:19 PM
o-Xylene	ND	1.0	NA		µg/L		9/4/2013 7:19 PM
Surr: Dibromofluoromethane	103	70.8-128	NA		%REC		9/4/2013 7:19 PM
Surr: 1,2-Dichloroethane-d4	96.4	73.2-133	NA		%REC		9/4/2013 7:19 PM
Surr: Toluene-d8	92.3	71-132	NA		%REC		9/4/2013 7:19 PM
Surr: 4-Bromofluorobenzene	102	74.2-129	NA		%REC		9/4/2013 7:19 PM
PHENOLICS		**Method: E420.1**					**Analyst: BA**
Phenolics	ND	0.010	NA		mg/L		9/5/2013 11:30 AM
Cyanide		**Method: E335.4**					**Analyst: AL**
Cyanide, Total	ND	0.020	NA		mg/L	9/3/2013 1:20 PM	9/4/2013 7:49 AM

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 9/9/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 7:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 COMP	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
METALS BY ICP		**Method: E200.7**				**E200.2**	**Analyst: CGW**
Cadmium	ND	0.0010	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Chromium	ND	0.0050	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Copper	0.0480	0.0050	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Lead	ND	0.0100	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Nickel	ND	0.0050	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Silver	ND	0.0050	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
Zinc	0.210	0.0200	NA		mg/L	9/3/2013 12:06 PM	9/4/2013 4:35 PM
HARDNESS		**Method: SM2340 B**					**Analyst: CGW**
Hardness, Total (As CaCO3)	187	1.00	NA		mg/L		9/4/2013 4:35 PM
MERCURY, Total		**Method: EPA245.1**				**EPA245.1**	**Analyst: DS**
Mercury	ND	0.0010	NA		mg/L	9/5/2013 12:05 PM	9/5/2013 4:09 PM

REI Consultants, Inc. - Analytical Report

WO#: 1308W28

Date Reported: 9/9/2013

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	8/30/2013 12:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	8/30/2013
Lab ID:	1308W28-03A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		**Method: E624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Bromodichloromethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Bromoform	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Bromomethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Carbon tetrachloride	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Chlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Chloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Chloroform	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Chloromethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Dibromochloromethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1-Dichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,2-Dichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,2-Dichloropropane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Ethylbenzene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Methylene chloride	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Tetrachloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Toluene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Trichloroethene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Trichlorofluoromethane	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Vinyl chloride	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
m,p-Xylene	ND	2.0	NA		µg/L		9/4/2013 7:54 PM
o-Xylene	ND	1.0	NA		µg/L		9/4/2013 7:54 PM
Surr: Dibromofluoromethane	104	70.8-128	NA		%REC		9/4/2013 7:54 PM
Surr: 1,2-Dichloroethane-d4	94.4	73.2-133	NA		%REC		9/4/2013 7:54 PM
Surr: Toluene-d8	93.0	71-132	NA		%REC		9/4/2013 7:54 PM
Surr: 4-Bromofluorobenzene	102	74.2-129	NA		%REC		9/4/2013 7:54 PM

Scan #3 of 3

12/31/2013

Carver, Beverley (DEQ)

From: Traci Montgomery [tmontgomery@bvcity.org]
Sent: Monday, January 20, 2014 11:05 AM
To: Carver, Beverley (DEQ)
Subject: FW: Analytical Report: 1312U09,EFFLUENT 001
Attachments: COC_1312U09_v1.pdf; Rpt_1312U09_Final_v1.pdf

Hi Bev,
This is the last set of data for the attachment D part of our permit. Please let me know if you need any more information.
Thanks,
Traci

From: TRACI MONTGOMERY [wmtmcm@hotmail.com]
Sent: Monday, January 20, 2014 11:04 AM
To: Traci Montgomery
Subject: FW: Analytical Report: 1312U09,EFFLUENT 001

> From: alerts@reiconnectonline.net
> To: wmtmcm@hotmail.com
> CC: cjones@reiclabs.com
> Date: Thu, 16 Jan 2014 16:22:36 -0500
> Subject: Analytical Report: 1312U09,EFFLUENT 001
>
Traci-
> Please find attached the report from December 31s. Double check the report against your attachment D list and let me know if anything is missing so I can try to recover any missing parameters. I have gone over the list as well.
>
> Sincerely,
>
> Cindy Jones
> Project Manager
> cjones@reiclabs.com
> PO Box 286
> Beaver, WV 25813
> REI Consultants, Inc.
> TEL: TEL: 304.255.2500 ()
> FAX: FAX:
> www.reiclabs.com

REIC

Improving the environment, one client at a time...

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101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Wednesday, January 15, 2014

Ms. Traci Montgomery
CITY OF BUENA VISTA WWTP
301 W. 10th ST.
BUENA VISTA, VA 24416

TEL: (540) 261-1078
FAX: (540) 261-4058

RE: EFFLUENT 001
Work Order #: 1312U09

Dear Ms. Traci Montgomery:

REI Consultants, Inc. received 3 sample(s) on 12/31/2013 for the analyses presented in the following report.

Sincerely,

Cindy Jones

Cindy Jones
Project Manager

REI Consultants, Inc. - Case Narrative

WO#: 1312U09

Date Reported: 1/15/2014

Client: CITY OF BUENA VISTA WWTP

Project: EFFLUENT 001

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

DEFINITIONS:
MCL: Maximum Contaminant Level
MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.
Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).
NA: Not Applicable
ND: Not Detected at the PQL or MDL
PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.
Qual: Qualifier that applies to the analyte reported.
TIC: Tentatively Identified Compound, Estimated Concentration denoted by "J" qualifier.
Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:
*: Reported value exceeds required MCL
B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL
E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.
H: Holding time for preparation or analysis has been exceeded.
J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.
S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:
Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00281, KYDEP 90039, TNDEQ TN02926, NCDWQ 466, PADEP 68-00839, VADCLS (VELAP) 460148
Bioassay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460148, PADEP 68-00839
Roanoke, VA: VADCLS(VELAP) 460150
Verona, VA: VADCLS(VELAP) 460151
Ashland, KY: KYDEP 00094, WV 389
Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1312U09

Date Reported: 1/15/2014

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	12/31/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	12/31/2013
Lab ID:	1312U09-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: EPA 625**				**SW3510**	**Analyst: JD**
Acenaphthene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Acenaphthylene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Anthracene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Benzo(a)anthracene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Benzidine	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Benzo(a)pyrene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Benzo(b)fluoranthene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Benzo(g,h,i)perylene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Benzo(k)fluoranthene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Bis(2-chloroethoxy)methane	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Bis(2-chloroethyl)ether	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Bis(2-chloroisopropyl)ether	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Bis(2-ethylhexyl)phthalate	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
4-Bromophenyl phenyl ether	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Butyl benzyl phthalate	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
4-Chloro-3-methylphenol (p-chloro-m-cresol)	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2-Chloronaphthalene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2-Chlorophenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
4-Chlorophenyl phenyl ether	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Chrysene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Dibenz(a,h)anthracene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Di-n-butyl phthalate	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
1,2-Dichlorobenzene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
1,3-Dichlorobenzene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
1,4-Dichlorobenzene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
3,3'-Dichlorobenzidine	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2,4-Dichlorophenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Diethyl phthalate	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2,4-Dimethylphenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Dimethyl phthalate	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2,4-Dinitrophenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2,4-Dinitrotoluene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2,6-Dinitrotoluene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Di-n-octyl phthalate	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Fluoranthene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Fluorene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Hexachlorobenzene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Hexachlorobutadiene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Hexachlorocyclopentadiene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM

REI Consultants, Inc. - Analytical Report

WO#: 1312U09

Date Reported: 1/15/2014

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	12/31/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	12/31/2013
Lab ID:	1312U09-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Hexachloroethane	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Indeno(1,2,3-cd)pyrene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Isophorone	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Naphthalene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Nitrobenzene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2-Nitrophenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
4-Nitrophenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
N-Nitrosodi-n-propylamine	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
N-Nitrosodimethylamine	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
N-Nitrosodiphenylamine	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Pentachlorophenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Phenanthrene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Phenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Pyrene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
1,2,4-Trichlorobenzene	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
2,4,6-Trichlorophenol	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Surr: 2-Fluorophenol	40.5	25.9-110	NA		%REC	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Surr: Phenol-d5	29.3	8.2-110	NA		%REC	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Surr: Nitrobenzene-d5	71.1	62.2-110	NA		%REC	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Surr: 2-Fluorobiphenyl	71.2	54.6-110	NA		%REC	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Surr: 2,4,6-Tribromophenol	79.3	61.7-110	NA		%REC	1/2/2014 12:54 PM	1/2/2014 5:55 PM
Surr: 4-Terphenyl-d14	72.1	10.7-110	NA		%REC	1/2/2014 12:54 PM	1/2/2014 5:55 PM
SEMIVOLATILE ORGANIC COMPOUNDS		**Method: EPA 625**			**SW3510**		**Analyst: JD**
1,2-Diphenylhydrazine	ND	0.0081	NA		mg/L	1/2/2014 12:54 PM	1/2/2014 5:55 PM
ACROLEIN BY E624		**Method: EPA 624**					**Analyst: RB**
Acrolein	ND	10	NA		µg/L		1/2/2014 1:30 PM
VOLATILE ORGANIC COMPOUNDS		**Method: EPA 624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Bromodichloromethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Bromoform	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Bromomethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Carbon tetrachloride	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Chlorobenzene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Chloroethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Chloroform	1.3	1.0	NA		µg/L		1/2/2014 1:30 PM
Chloromethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Dibromochloromethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM

REI Consultants, Inc. - Analytical Report

WO#: 1312U09

Date Reported: 1/15/2014

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	12/31/2013 8:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	12/31/2013
Lab ID:	1312U09-01A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 GRAB	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
1,1-Dichloroethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
1,2-Dichloroethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
1,1-Dichloroethene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
1,2-Dichloropropane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Ethylbenzene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Methylene chloride	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Tetrachloroethene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Toluene	3.7	1.0	NA		µg/L		1/2/2014 1:30 PM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Trichloroethene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Trichlorofluoromethane	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Vinyl chloride	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
m,p-Xylene	ND	2.0	NA		µg/L		1/2/2014 1:30 PM
o-Xylene	ND	1.0	NA		µg/L		1/2/2014 1:30 PM
Surr: Dibromofluoromethane	117	70.8-128	NA		%REC		1/2/2014 1:30 PM
Surr: 1,2-Dichloroethane-d4	145	73.2-133	NA	S	%REC		1/2/2014 1:30 PM
Surr: Toluene-d8	96.1	71-132	NA		%REC		1/2/2014 1:30 PM
Surr: 4-Bromofluorobenzene	128	74.2-129	NA		%REC		1/2/2014 1:30 PM
VOLATILE ORGANIC COMPOUNDS-624		**Method: EPA 624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	5.0	NA		µg/L		1/2/2014 1:30 PM
Acrylonitrile	ND	10	NA		µg/L		1/2/2014 1:30 PM
PHENOLICS		**Method: EPA 420.1**					**Analyst: BA**
Phenolics	ND	0.010	NA		mg/L		1/6/2014 12:30 PM
Cyanide		**Method: EPA 335.4**					**Analyst: MC**
Cyanide, Total	ND	0.020	NA		mg/L	1/2/2014 9:05 AM	1/2/2014 1:33 PM

REI Consultants, Inc. - Analytical Report

WO#: 1312U09

Date Reported: 1/15/2014

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	12/31/2013 7:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	12/31/2013
Lab ID:	1312U09-02A	**Matrix:**	Waste Water
Client Sample ID:	EFFLUENT 001 COMP	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
METALS BY ICP		**Method: EPA 200.7**				**EPA 200.2**	**Analyst: CGW**
Antimony	ND	0.0200	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Arsenic	ND	0.0200	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Beryllium	ND	0.0010	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Cadmium	ND	0.0010	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Chromium	ND	0.0050	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Copper	0.0108	0.0050	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Lead	ND	0.0100	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Nickel	ND	0.0050	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Selenium	ND	0.0200	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Silver	ND	0.0050	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Thallium	ND	0.0100	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
Zinc	0.0210	0.0200	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
HARDNESS		**Method: SM2340 B-1997**				**EPA 200.2**	**Analyst: CGW**
Hardness, Total (As CaCO3)	92.5	1.00	NA		mg/L	1/3/2014 8:07 AM	1/6/2014 2:49 PM
MERCURY, Total		**Method: EPA 245.1**				**EPA 245.1**	**Analyst: DS**
Mercury	ND	0.0010	NA		mg/L	1/9/2014 10:42 AM	1/9/2014 3:24 PM

REI Consultants, Inc. - Analytical Report

WO#: 1312U09

Date Reported: 1/15/2014

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	12/31/2013 12:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	12/31/2013
Lab ID:	1312U09-03A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
ACROLEIN BY E624		**Method: EPA 624**					**Analyst: RB**
Acrolein	ND	10	NA		µg/L		1/2/2014 2:06 PM
VOLATILE ORGANIC COMPOUNDS		**Method: EPA 624**					**Analyst: RB**
Benzene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Bromodichloromethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Bromoform	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Bromomethane (methyl Bromide)	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Carbon tetrachloride	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Chlorobenzene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Chloroethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Chloroform	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Chloromethane (methyl Chloride)	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Dibromochloromethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,2-Dichlorobenzene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,3-Dichlorobenzene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,4-Dichlorobenzene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,1-Dichloroethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,2-Dichloroethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,1-Dichloroethene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
trans-1,2-Dichloroethene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,2-Dichloropropane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
cis-1,2-Dichloroethene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
cis-1,3-Dichloropropene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
trans-1,3-Dichloropropene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Ethylbenzene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Methylene chloride (Dichloromethane)	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,1,2,2-Tetrachloroethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Tetrachloroethene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Toluene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,1,1-Trichloroethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
1,1,2-Trichloroethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Trichloroethene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Trichlorofluoromethane	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Vinyl chloride	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
m,p-Xylene	ND	2.0	NA		µg/L		1/2/2014 2:06 PM
o-Xylene	ND	1.0	NA		µg/L		1/2/2014 2:06 PM
Surr: Dibromofluoromethane	104	70.8-128	NA		%REC		1/2/2014 2:06 PM
Surr: 1,2-Dichloroethane-d4	96.3	73.2-133	NA		%REC		1/2/2014 2:06 PM
Surr: Toluene-d8	102	71-132	NA		%REC		1/2/2014 2:06 PM

REI Consultants, Inc. - Analytical Report

WO#: 1312U09

Date Reported: 1/15/2014

Client:	CITY OF BUENA VISTA WWTP	**Collection Date:**	12/31/2013 12:00:00 AM
Project:	EFFLUENT 001	**Date Received:**	12/31/2013
Lab ID:	1312U09-03A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	

Analysis	Result	PQL	MCL	Qual	Units	PrepDate	Date Analyzed
Surr: 4-Bromofluorobenzene	105	74.2-129	NA		%REC		1/2/2014 2:06 PM
VOLATILE ORGANIC COMPOUNDS-624		**Method: EPA 624**					**Analyst: RB**
2-Chloroethyl vinyl ether	ND	5.0	NA		µg/L		1/2/2014 2:06 PM
Acrylonitrile	ND	10	NA		µg/L		1/2/2014 2:06 PM

414331

CHAIN OF CUSTODY RECORD

REIC
Research Environmental & Industrial Consultants, Inc.
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Ashland, KY 41101
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SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: City of Buena Vista WWTP PO #
Contact Person: Traci Montgomery Phone: 540-261-1078
QUOTE # Fax: 540-261-4058 Email:
Address: 301 W. 10th St. City: Buena Vista State: VA Zip: 24416
Billing Address (if different): 2039 Sycamore Ave.
City: B.V. State: VA Zip: 24416
Site ID & State Project ID Sampler: Traci M.

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME — RUSH TURNAROUND
☐ NORMAL ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

ANALYSIS & METHOD REQUESTED: Cyanide | Metals by 200.7 | Hardness | Mercury | Solids by 625 | VOCs by 624 | Ammonia | Total Phenolics | Blank

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	Cyanide	Metals by 200.7	Hardness	Mercury	Solids by 625	VOCs by 624	Ammonia	Total Phenolics	Blank
Effluent 001	1 plastic	12-31-13/8:00Am	WW	grab	✓								
Effluent 001	2 plastic	7Am-7Am 12-31-13	WW	Comp		✓	✓	✓					
Effluent 001	2 Amber glass	12-31-13/8:00Am	WW	grab					✓				
Effluent 001	3 vials	12-31-13/8:00Am	WW	grab						✓			
Effluent 001	2 vials	12-31-13/8:00Am	WW	grab							✓		
Effluent 001	1 Amber glass	12-31-13/8:00Am	WW	grab								✓	
Effluent 001	1 Amber glass	12-31-13/8:00AM	WW	grab								✓	

ENTER PRESERVATIVE CODE:
0 None 5 Sodium Hydroxide
1 Hydrochloric Acid 6 Zinc Acetate
2 Nitric Acid 7 EDTA
3 Sulfuric Acid 8 Ascorbic Acid
4 Sodium Thiosulfate

COMMENTS: (NOTE FOR REIC USE)
* LOG IN: REFERENCE JOB # 1308W28. (KM) 12-18-13

All analytical requests are subject to REIC's Standard Terms and Conditions.

Temperature at arrival: 1.0 °C ICED? Y ✓ N ___

Containers provided by: [✓] REIC [ ] Client

1	Date/Time	2	Date/Time
Traci Montgomery (Relinquished by Signature)	12-31-13 1015	Relinquished by (signature)	
Katie Beagles (Received by Signature)	12-31-13 1015	Received by (signature)	

FAX RESULTS ☐ EMAIL RESULTS ☐
SHIPMENT ___ Hand Delivered ✓ Courier ___ UPS ___ FEDEX ___ USPS ___ OTHER

COC-NCR-050213